

Atty. Dkt. No. 039153-5002 (G0166)

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (Cancelled)

12. (Currently Amended) A fuse for an integrated circuit, the fuse comprising a material capable of existing in a first phase or a second phase in response to at least one of a current signal and a voltage signal, the fuse having a different resistance in the first phase than in the second phase, the material having a first end having a surface area and a second end having a second surface area and a narrow portion between the first end and the second end, wherein the first end and the second end are each coupled to set of contacts.

13. (Original) The fuse of claim 12, wherein the fuse further comprises a layer of material including silicon and a silicide layer.

14. (Previously Presented) The fuse of claim 12, wherein the silicide includes nickel.

15. (Original) The fuse of claim 12, wherein first phase includes mononickel silicide and the second phase includes nickel disilicide.

16. (Currently Amended) An integrated circuit comprising:
a first set of contacts;
a second set of contacts;
a polysilicon layer disposed above an insulative structure; and
a silicide layer disposed above the polysilicon layer, the silicide layer being a first type and being convertible to a silicide layer of a second type in response to a signal, wherein a resistance of the silicide layer changes when the silicide layer is converted from the first type to the second type, the silicide layer being coupled to the first set of contacts at a first end and a second set of contacts at the second end.

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17. (Original) The integrated circuit of claim 15, wherein the silicide layer of the first type is mononickel silicide.

18. (Original) The integrated circuit of claim 16, wherein the silicide layer of the second type is nickel disilicide.

19. (Original) The integrated circuit of claim 17, wherein the insulative structure is a field oxide or an insulative layer.

20-21. (Cancelled)

22. (Currently Amended) A fuse comprises:
means for having a first phase and a second phase, the first phase having a different resistivity than the second phase; and
means for receiving a current and changing the means for having from the first phase to the second phase with the current, wherein the means for receiving current includes a first set of contacts disposed on a first end of the means for having and a second set of contacts disposed on a second end of the means for receiving.

23. (Previously Presented) The fuse of claim 22, wherein the second phase is a relatively higher resistance than the first phase.

24. (Previously Presented) The fuse of claim 23, wherein the current is a programming current.

25. (Previously Presented) The fuse of claim 24, wherein the means for having is a material having a first sheet resistance in the second phase of at least two times of a second sheet resistance in the second phase.

26. (Previously Presented) The fuse of claim 25, the first sheet resistance is at least 8 times the second sheet resistance.

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27. (Previously Presented) The fuse claim 25, wherein the first sheet resistance is approximately 10 times the second sheet resistance.
28. (Previously Presented) The fuse of claim 22, wherein the means for having is a material including nickel.
29. (Previously Presented) The fuse of claim 28, wherein the material is a silicide.
30. (Previously Presented) The fuse of claim 28, wherein first phase includes mononickel silicide and the second phase includes nickel disilicide.
31. (Previously Presented) The fuse of claim 30, wherein the first phase has a sheet resistance between 1-5 ohms per square.
32. (Previously Presented) The fuse of claim 31, wherein the second phase has a sheet resistance between 10 and 40 ohms per square.
33. (Currently Amended) A fuse for an integrated circuit, the fuse comprising:
a first set of contacts;
a second set of contacts;
a silicide layer coupled to the first set of contacts and the second set of contacts;
and
a layer including silicon, the layer including silicon being above a bulk silicon substrate or a field oxide structure and below the silicide layer, wherein the silicide layer is configured in a fuse pattern, wherein the silicide layer is in a first phase, the first phase being convertible to a second phase, the first phase having a different resistance characteristic than the second phase.
34. (Previously Presented) The fuse of claim 33 further comprising:
conductive vias at a first end and a second end of the fuse pattern.